



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/591,516

08/08/2007

Hirokazu Arai

58328/A400

1668

23363 7590 02/17/2011
CHRISTIE, PARKER & HALE, LLP
PO BOX 7068
PASADENA, CA 91109-7068

EXAMINER

LACLAIR, DARCY D

ART UNIT

PAPER NUMBER

1763

MAIL DATE

DELIVERY MODE

02/17/2011

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|------------------------------------|--|
| Office Action Summary | Application No. 10/591,516 | Applicant(s) ARAI ET AL. | |
| | Examiner Darcy D. LaClair | Art Unit 1763 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/1/2006, 10/29/2010</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Note MPEP 804: "Further, those portions of the specification which provide support for the patent claims may also be examined and considered when addressing the issue of whether a claim in the application defines an obvious variation of an invention claimed in the patent. *In re Vogel*, 422 F.2d 438, 441-42, 164 USPQ 619, 622 (CCPA 1970)."

1. **Claims 1-5** are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over **claims 1-8 of U.S. Patent No. 6,716,907** in view of **Togashi et al. (US 5,064,881)**. Although the conflicting claims are not identical, they are not patentably distinct from each other because both require a resol based phenolic molding composition.

With regard to Claims 1 and 3, the conflicting patent requires a resol based phenolic resin composition comprising, per 100 parts of resin by weight, 40 to 100 parts

Art Unit: 1763

by weight of inorganic fiber, 20 to 90 parts of a natural silica, and 1 to 15 parts of a rubber component. (Claim 1) Further, the conflicting patent requires that the natural silica powder is shaped like pulverized power. (Claim 3) The conflicting patent does not explicitly teach the use of a silica having a particle size of 0.5 to 15 microns.

Togashi teaches an epoxy resin containing a phenol type resin, having a specific pulverized silica particle which has reduced mold shrinkage and improved precision in molding. (Abstract) The silica used to reduce mold shrinkage and improve molding is a specific pulverized silica (see col 2 line 20) having an average particle size up to 8 microns, and a maximum particle size up to 60 microns, (see col 2 line 50-51) and a specific pulverized silica having a maximum particle size of 10 microns, and an average particle size of 1.8 microns is exemplified. (See col 9 line 51-52) This silica allows high filling while simultaneously maintaining flowability. (See col 4 line 32-50) Furthermore, surface roughness of the molded objects is reduced, along with reduced mold shrinkage. (See col 7 line 54-60) This silica is used in a composition further including a glass fiber. (See col 2 line 40) Based on the similarities in the compositions, both including a phenol resin and glass fibers, it would be obvious to one of ordinary skill in the art to use a small pulverized silica having a reduced particle size as a replacement for the conflicting patent's slightly larger silica in order to obtain good flowability and therefore good mold filling and reduced molding flaws, a reduced surface roughness, and a reduced mold shrinkage, which further results in reduced warping or misshaping of the molded article due to the shrinkage, as similar benefits would be expected.

With respect to Claim 2, attention is first directed at the discussion of Claim 1, above. The conflicting patent further requires that the inorganic fiber includes 50% or more by weight of glass fiber. (Claim 2)

With respect to Claim 4, attention is directed at the discussion of Claims 1-3, above.

With respect to Claim 5, the conflicting patent requires that the resin is prepared in the form of a resin pulley molded from the composition. (Claim 5-8)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1-5** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Asai et al. (US 2002/0123557)** in view of **Togashi et al. (US 5,064,881)**.

With regard to Claims 1 and 3, Asai teaches a resol based phenolic resin composition containing, per 100 parts of resin by weight, 40 to 100 parts by weight of inorganic fiber, 20 to 90 parts of a natural silica, and 1 to 15 parts of a rubber component. The natural silica powder is preferably shaped like pulverized power. (See abstract).

Asai does not explicitly teach the use of a silica having a particle size of 0.5 to 15 microns.

Art Unit: 1763

Togashi teaches an epoxy resin containing a phenol type resin, having a specific pulverized silica particle which has reduced mold shrinkage and improved precision in molding. (Abstract) The silica used to reduce mold shrinkage and improve molding is a specific pulverized silica (see col 2 line 20) having an average particle size up to 8 microns, and a maximum particle size up to 60 microns, (see col 2 line 50-51) and a specific pulverized silica having a maximum particle size of 10 microns, and an average particle size of 1.8 microns is exemplified. (See col 9 line 51-52) This silica allows high filling while simultaneously maintaining flowability. (See col 4 line 32-50) Furthermore, surface roughness of the molded objects is reduced, along with reduced mold shrinkage. (See col 7 line 54-60) This silica is used in a composition further including a glass fiber. (See col 2 line 40) Based on the similarities in the compositions, both including a phenol resin and glass fibers, it would be obvious to one of ordinary skill in the art to use a small pulverized silica having a reduced particle size as a replacement for Asai's slightly larger silica in order to obtain good flowability and therefore good mold filling and reduced molding flaws, a reduced surface roughness, and a reduced mold shrinkage, which further results in reduced warping or misshaping of the molded article due to the shrinkage, as similar benefits would be expected.

With respect to Claim 2, attention is first directed at the discussion of Claim 1, above. Asai teaches that it is preferred that the inorganic fiber includes 50% or more by weight of glass fiber. (See abstract)

With respect to Claim 4, attention is directed at the discussion of Claims 1-3, above.

With respect to Claim 5, Asai teaches that the resin is prepared in the form of a resin pulley molded from the composition. (See abstract)

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Darcy D. LaClair whose telephone number is (571)270-5462. The examiner can normally be reached on Monday-Friday 10-7.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on 571-272-1398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Milton I. Cano/
Supervisory Patent Examiner, Art Unit 1763

Darcy D. LaClair
Examiner
Art Unit 1763

/DDL/